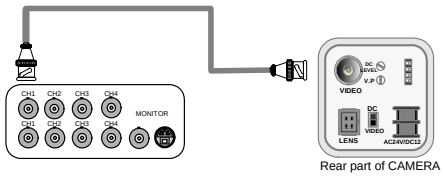
DVR System User Guide

Video:

1) Camera Connection

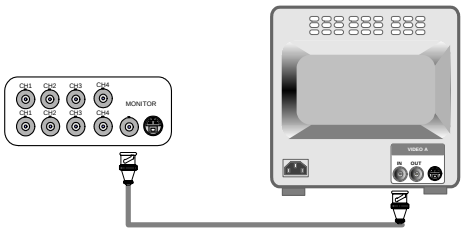
Connect the camera to the CAMERA INPUT on the Rear Panel of the DVR.



2) Monitor Connection (Composite Connection Method)

Connect the monitor to the MONITOR OUT on the Rear Panel of the DVR. (BNC or S-Video Type)

- VGA output is optional.



3) NTSC and PAL system detect.

Power on camera first, then power on DVR.

DVR system detect default is AUTO. DVR would detect NTSC or PAL system automatically.

- But if by order, factory can set to NTSC or PAL on request.

When you find the DVR detect wrong system, please follow the procedure.

Correct:

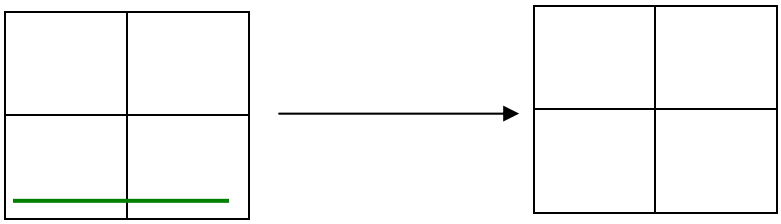
Camera (PAL) (power off) + DVR (Power off): Power on Camera (PAL) →Power on DVR (System detect = PAL)

Wrong:

Camera (PAL) (power off) + DVR (Power off): Power on DVR (does not know what (NTSC or PAL) system on it now) →Power on Camera (DVR System detect = nothing)

For example:

DVR NTSC but Camera PAL, it shows like a green line. Solution? Reboot DVR, DVR would detect system again.

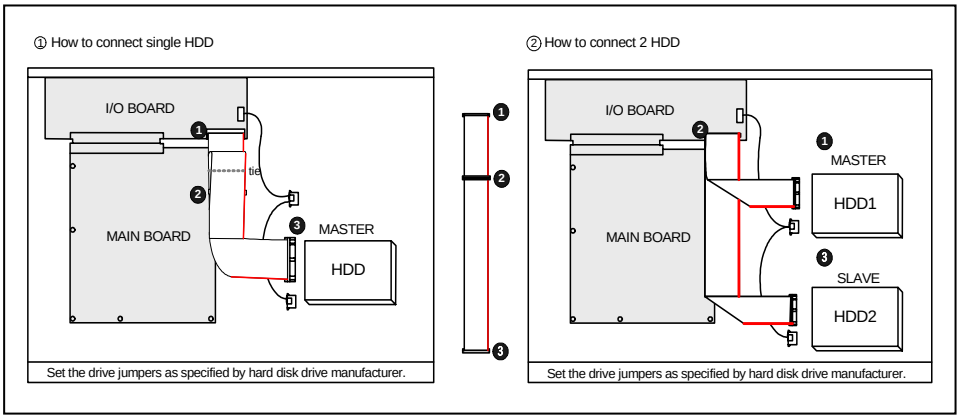


Notice: NT~~SC / PAL is switch~~able on system setup menu.

Check Main MENU→System Setup→ VIDEO INPUT: NTSC / PAL system detection.

- AUTO / NTSC / PAL.

Hard Disk installation:



1. One hard disk installed.
2. Make sure the HDD is MASTER.
3. Make sure the cable connector is correct.
4. Please check the HDD panel for Master set up.

1. Two hard disk installed.
2. Make sure the HDD is MASTER and SLAVE.
3. Make sure the cable connector is correct.
4. Please check the HDD panel for Master and Slave set up.

Notice:

-Hard Disk Master and Slave jumper pin must be correct, otherwise it makes DVR work fault.

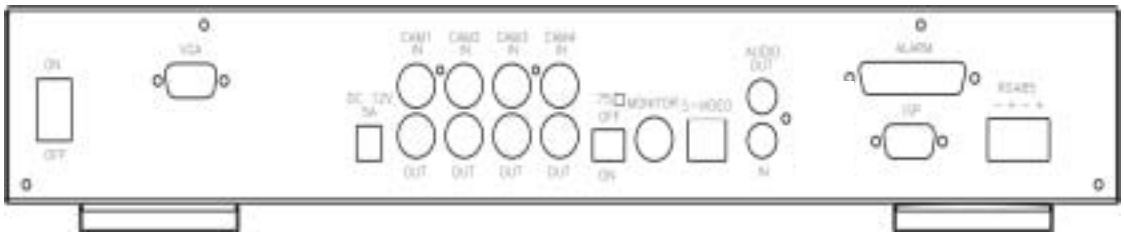
-According to our testing, Seagate and Maxtor are working more stably . We strongly recommend user to choose Seagate and Maxtor instead of other brands.

-Go to MENU→Hard Disk Information to make sure all HDDs are all detected.

After DVR power on, No hard disk detected?

1. Make sure the first hard disk is a good one. Else, please try second.
2. Make sure hard disk Master or Slave pin is correct. There is only one HDD, set it as Master. With two hard disk install, set them as Master and Slave.
3. Make sure hard disk IDE cable and power core, plug in tight. The removable hard disk also plug in, too,
4. Open DVR front case, make sure all IDE cable or power core are not relax.
5. Still nothing detect, please contact sales.

DVR rear panel connector description:



OUT - BNC Type:

Video looping out can be connecting to another 4 CH DVR or a 4 CH Multiplexer.

Advantage:

Double image recording backup, capable data to retrieve if unsafe events happen.

75 ohm - DIP type:

For video looping out impedance terminator. High and Low switch.

Monitor out – BNC and S-Video type. (VGA interface is optional.)

Advantage:

Multi users view live image, keep living environment more safety.

Audio – RCA type:

Advantage:

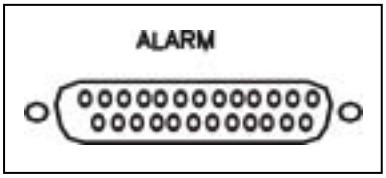
One channel audio input and out, to record important events voice.

Alarm – 25-pin DB type:

Advantage:

Connect the Sensor to the SENSOR INPUT/ OUTPUT on the Rear Panel of the system.

It could be an alarm-warning bell or an alarm warning light to remind the security guard, while an event is happening.



13,12,11,10,9,8,7,6,5,4,3,2,1

25,24,23,22,21,20,19,18,17,16,15,14

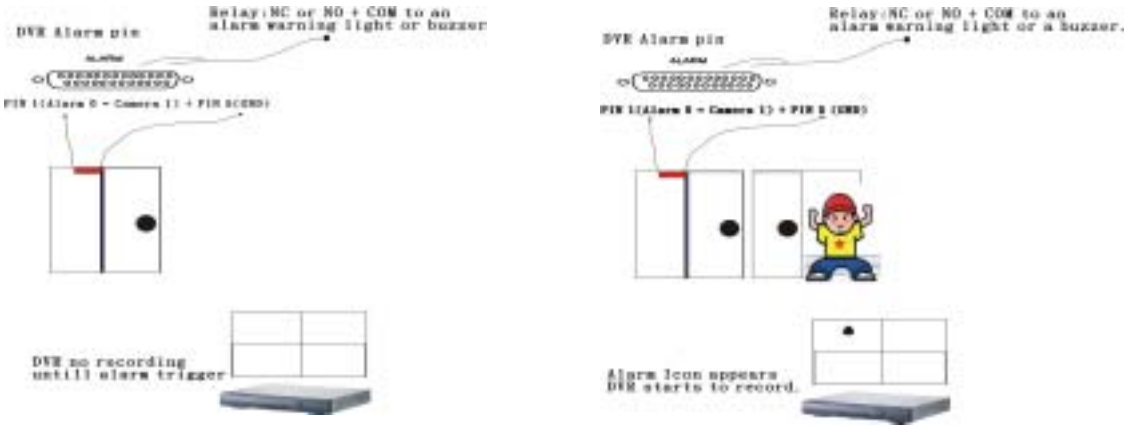
1.ALARM0
2.ALARM1
3.ALARM2
4.ALARM3
23.ALARM NC
24.ALARM NO
25.ALARM COM
5. ~ 19. GND

Connecting:

◆Relay output : COM+NC, COM+NO

◆Alarm input : Short-circuit between Alarm0, Alarm1, Alarm2 or Alarm3 and GND is recognized as alarm by default. Alarm0~3 will be corresponding to Camera1~4.

Example:


Relay:NC or NO + COM to an alarm warning light or buzzer
DVR Alarm pin
DVR no recording until alarm trigger
Relay:NC or NO + COM to an alarm warning light or a buzzer.
DVR Alarm pin
Alarm Icon appears DVR starts to record.

ISP – 9-pin DB type:

Advantage:

Easy for firmware update by ISP transfer if supplier recommend user, a new version is available now.

RS 485 – Jack type:

Advantage:

Multi DVR connecting and user control. RS 458 cable included

For example, A business building:

5F. Peripheral: Cameras x 4; 4 CH DVR x 1
4F. Peripheral: Cameras x 4; 4 CH DVR x 1
3F. Peripheral: Cameras x 4; 4 CH DVR x 1
2F. Peripheral: Cameras x 4; 4 CH DVR x 1
1F. Peripheral: Cameras x 4; 4 CH DVR x 1; Monitors; Control keyboard.

RS 485 + /- all connect correct.

Total Peripheral amount:

-Cameras (Fixed cameras or P / T /Z dome) x 20.

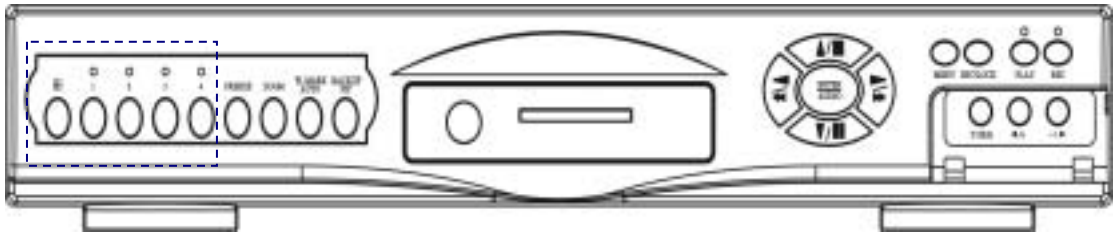
-4 CH DVR x 5

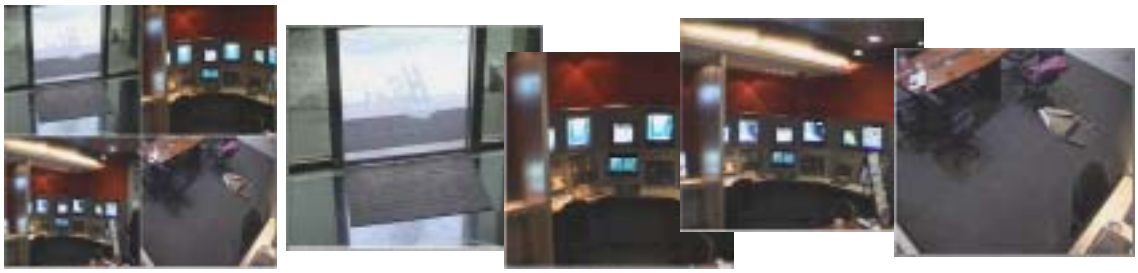
-Monitors: maybe x 1 or 5. (Video switcher or a Matrix device is necessary on suggestion.)

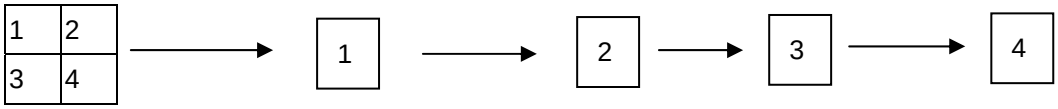
-Control Keyboard: maybe x 1 or x 4 or x 8. According to different system or multi guards.

-Each DVR or P / T / Z dome in every floor (1F ~ 5F) can be control by a user (users) with a keyboard (keyboards) in 1 F.

DVR front panel touch button function description:

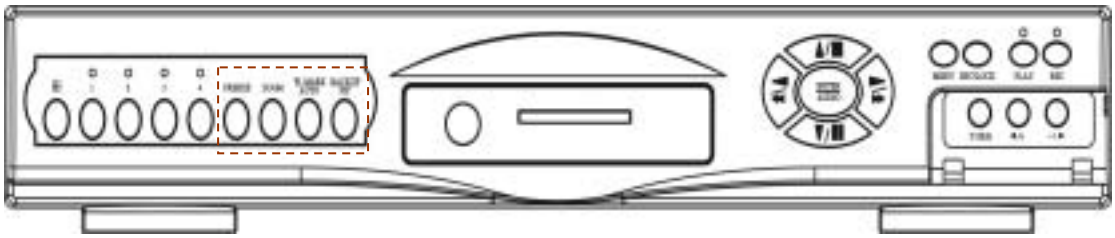






>Playback mode, press 4 quad key. 4 or 9 split screen display. On 9 split screen, 1 ~ 4 is live, 6 ~ 9 is playback.

> 4 Quad split screen display.→1 Ch or 2 Ch or 3 Ch or 4 Ch full screen display.



1. **Freeze** button:

Live image freeze function. Temporary freeze live image if user find out an event happens and easy to identify. (With ZOOM function button.)

2. **ZOOM** button:

Live or playback image zoom 2 x 2 function mode. Normally for user to identify object clearly. (Maybe people face or the license plate.) –Only on full screen.

3. W.MARK /**AUTO** button:

- AUTO: Auto sequence function mode. On quad mode or full screen mode, press AUTO button to start screen auto sequence.

4. **W.MARK** / AUTO button:

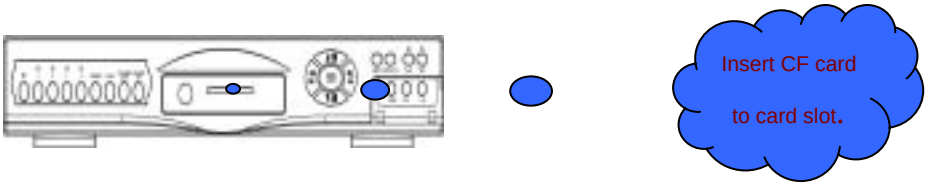
- **W.MARK** = Water Mark. Water Mark record protection function. To avoid hacker use special software modifies image data. (Only for hard disk, not CF card.)

5. BACKUP **/ PIP**. Image picture in picture display.

1.) Press (PIP) button. Press (AUTO) button begins to sub-screen auto sequence.

2) With button, select the main channel screen, press button to select desired camera channel in small screen.

6. BACKUP / PIP. Image backup mode. Image backup mode. (Image back up must be done on playback mode only.)



After :

Locate the playback point of which you want. Press BACKUP, the BACKUP CAUTION window pop-up. Press ENTER to begin data back up. Capacity of CF card is no limit, but the maximum capacity display is 9999MB.

On playback mode, presses BACKUP:

```
** BACKUP CAUTION **
ALL DATA IN THE CF CARD
WILL BE CLEARED.
PRESS [ENTER]    TO BACKUP.
PRESS [BACKUP] TO CANCEL.
```

Lower-Right corner of the screen:

```
0000M / 0256M
```

0000M / 0256 (Presently back up progress / Total capacity of CF card)

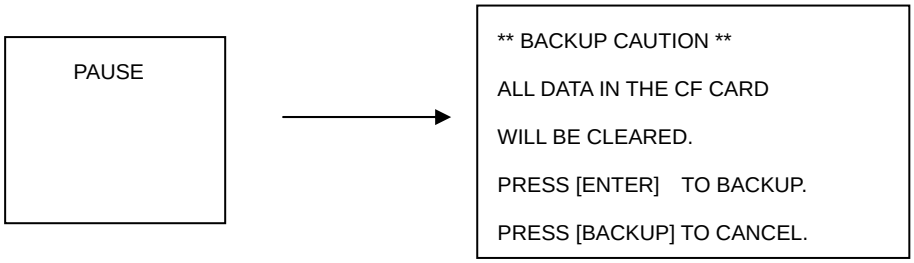
Important:

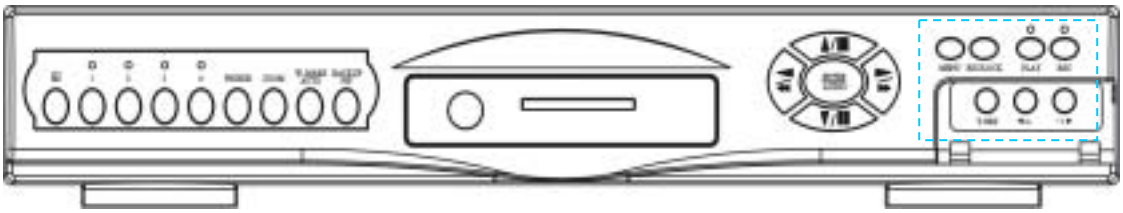
If the CF card contains old data, please format CF card to FAT or FAT 32 on computer before insert to DVR CF card slot. Otherwise, DVR would not detect correct CF card format.

Any brand of CF card is acceptable.

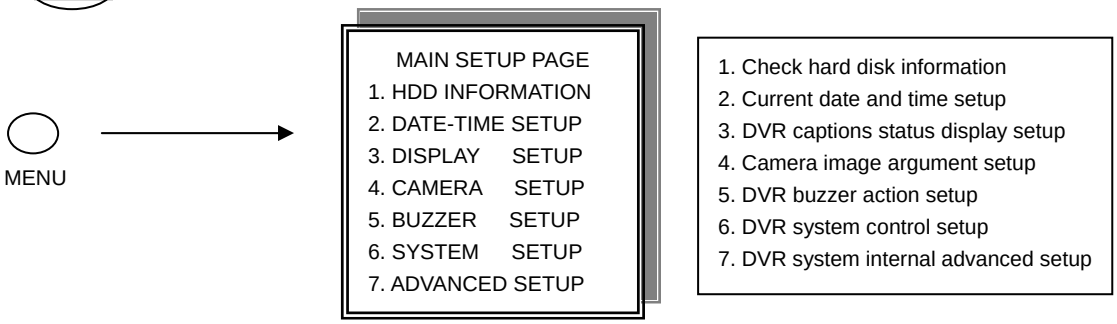
Additional:

During playback, CF card is full or user press BACKUP button screen display a “PAUSE” caption, User takes out the CF to computer USB slot then save data to hard disk.
After, re- insert CF card to slot, user press BACKUP again. Press ENTER to continue backup or backup button to cancel.

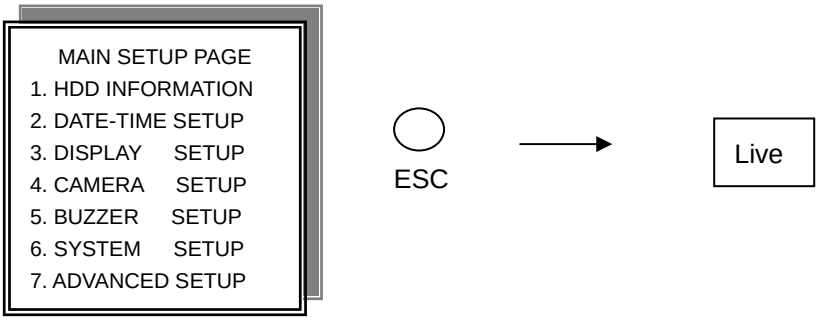




7. **MENU**: MENU OSD function button.

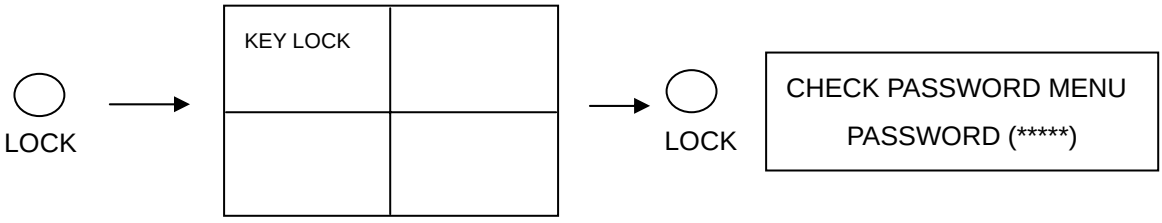


8. **ESC** / LOCK: MENU mode exit button.



9. ESC / **LOCK**: DVR system key lock button.

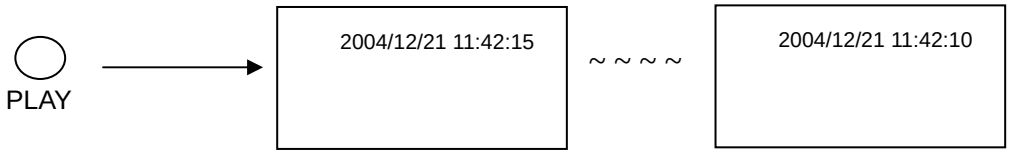
On the Live or Playback mode, press (lock),
Only, quad (mode), numeric, freeze, auto, pip, zoom, and audio buttons could work. Press lock key again to enter the login-in window. Enter admin or user password to unlock.



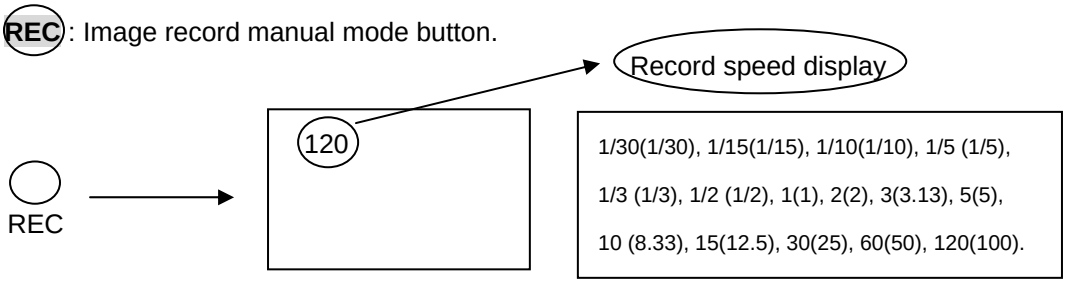
Notice: Default password is 44444(admin) or 11111(user)

10. **PLAY:** Image playback mode button.

DVR playback the image in backward mode.

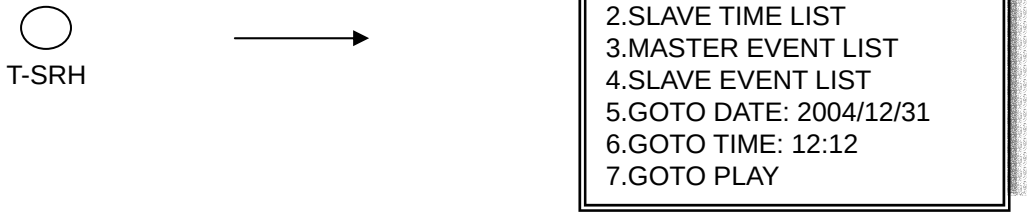


11. **REC**: Image record manual mode button.



Record speed setting is on advanced setup→Record Setup→Record Speed.

12. **T-SRH**: Playback by time search mode button.



Direction buttons:

- **UP / STOP:** Direction button UP / Playback stop button▲ / ■
- **REW :** Reverse playback choose button / Still playback ◀/ ◀◀
- **DOWN / STEP :** Direction button down / Playback pause ▼/ ▮▮
- **FF :** Forward playback choose button / Still playback▶ / ▶▶
- **ENTER / AUDIO :** Sub-menu enter button / Audio on or off function button

DIRECTION BUTTON : Playback speed choose. (Increase)▶ or values change.

DIRECTION BUTTON : Playback speed choose.(reduce) ◀or values change.

Main MENU and Sub-Menu:

Main menu	Function	Client
1. HDD INFORMATION	Check hard disk information	Easy to know hard disk information detect right or not.
2. DATE-TIME SETUP	Current date and time setup	Local area date and time setting.
3. DISPLAY SETUP	DVR captions status display setup	Screen display vision.
4. CAMERA SETUP	Camera image setup	Improve camera picture.
5. BUZZER SETUP	DVR buzzer action setup	No noise jamming to user.
6. SYSTEM SETUP	DVR system control setup	Control keyboard connecting.
7. ADVANCED SETUP	DVR system internal advanced setup	Record type with time-lapse.

1. HDD INFORMATION	Function	Client
> POSITION.	Master	Depends on the brand of hard disk. Master and slave are at different position of jump pin.
	Slave	
>SIZE	Capacity display	Hard Disk capacity. xxGB. Maximum display is 999MB Make sure it displays the correct capacity that user install.
>USED	0% ~ 100%	Hard disk overwrites always on 100 %.
>BRAND	HDD brand	Make sure brand displays the correct that user install.
>LAST TIME	Last recording time	Make sure it displays the correct stop record time.

2. DATE-TIME SETUP	Function	Client
>DATE	Current Date setup	Date and time setting must be on DVR stop recording.
>TIME	Current Time setup	Date and time setting must be on DVR stop recording.
DISPLAY AT xx LINE(S)	Date and time position	Change the position that user wants on screen.
>DAYLIGHT SAVING	Daylight saving	Make it on mode: ON if user country is on daylight saving area. The Daylight Savings function that enable two special updates when it sets to “ON”. On the first Sunday in April, the time increments from 1:59:59 AM to 3:00:00 AM. On the last Sunday in October when the time first reaches 1:59:59 AM, it changes to 1:00:00 AM.

3. DISPLAY SETUP	Function	Client
>DATE-TIME	ON	DVR date and time caption display on screen.
	OFF	
>CAMERA TITLE	ON	DVR camera title caption display on screen.
	OFF	
>PB DATE-TIME	ON	DVR playback date and time caption display on screen.
	OFF	
>PB CMAREA TITLE	ON	DVR playback camera title caption display on screen.
	OFF	
>DVR STATUS	ON	DVR current action caption display on screen.
	OFF	
>BORDER SET	Split line color	DVR screen split line color change. WHITE / DARK / BLACK / GRAY

4. CAMERA SETUP	Function	Client
>COLOR SETUP	CH NUMBER	Proper adjustment of each element in COLOR setup will increase picture quarterly displayed. We recommend you to adjust each element of COLOR SETUP for cameras and monitor to be connected to the DVR unit.
	BRIGHTNESS	
	CONTRAST	
	SATURATION	
	HUE	
	GAIN	
	DEFAULT RESET	
>TITLE SETUP	18 characters	Set camera title (Place title.)
>SCREEN POSITION	Up/down/left/right	Screen position is movable.
>V-LOSS DISPLAY	ON	V LOSS caption displays on each channel screen.
	OFF	
> VIDEO MASK SETUP	ON	Live channel display is hiding.
	OFF	
Press MASK channel number key to full channel twice, and then log in password. MASK off.		

5. BUZZER Setup	Function	Client
>SYSTEM BUZZER	ON	System control status buzzer
	OFF	
>BUTTON BUZZER	ON	System button buzzer
	OFF	
>ALARM BUZZER	ON	System alarm trigger buzzer.
	OFF	
>MOTION BUZZER	ON	System object motion buzzer.
	OFF	
>VLOSS BUZZER	ON	Camera channel video loss buzzer.
	OFF	

6. SYSTEM SETUP	Function	Client
>DWELL INTERVAL	0 ~ 999 SEC	Channel auto sequence duration time setup.
>LANGUAGE	ENGLISH	DVR system different language setup.
	CHINESE	
	JAPANESE	
>VIDEO INPUT	AUTO	DVR system NTSC or PAL setup.
	NTSC	
	PAL	
> WATERMARK CHECK	ON	Water Mark protection function on or off. To prevent hacker using special software to modify the image data. System Setup→Watermark Check mode On. Press W.Mark button to on or off.
	OFF	
>RS-485 ID	01 ~ 16	DVR ID setup if a control keyboard is connecting. Total DVR amount is 16.
>RS-485 PROTOCOL	KEYB	DVR protocol setup if a control keyboard is connecting. If DVR + P / T / Z, protocol will be different.
	LILIN	
	PELCO-P	
	PELCO-D	
	NICECAM	
>RS-485 BAUD RATE	1200	DVR baud rate setup if a control keyboard is connecting. If DVR + P / T / Z, baud rate will be different.
	2400	
	4800	
	9600	

7. ADVANCED SETUP		
>ALARM SETUP	Function	Client
>ALARM FUNCTION	ON	Alarm action.
	OFF	DVR starts to record only on alarm trigger.
>ALARM DURATION	0 ~ 999 SEC	Alarm recording duration time.
>ALARM RELAY SETUP	ON	Alarm relay action setup.
	OFF	Same as Motion.
>ALARM POLARITY SETUP	OFF	Alarm trigger type NC or NO setup.
	N.C.	
	N.O.	

>MOTION SETUP	Function	Client
MOTION FUNCTION	ON	Motion action.
	OFF	DVR starts to record only on object moving.
MOTION DURATION	0 ~ 999 SEC	Motion recording duration time.
CHANNEL NUMBER	01 ~ 04 CH	Channel select.
SENSITIVITY	1 ~ 32	Object moving sensitivity setup. 1 (low) ~ middle ~ 32 (high)
VELOCITY	1 ~ 10	Object moving speed setup. 1(slow) ~ middle ~ 10 (fast)
MOTION ACTIVE	ON	Motion recording active setup.
	OFF	
MOTION RELAY	ON	Motion relay action setup.
	OFF	Same as Alarm.
MOTION AREA SETUP		Channel area detects setup.

Example:

DVR no recording → DVR no recording. → Until object motion, then DVR starts to record.

>RECORD SETUP	Function	Client
>HDD FULL	OVERWRITE	When Hard disk is full, select overwrite record or stop record.
	STOP REC	
>RECORD SPEED	1/30(1/30), 1/15(1/15), 1/10(1/10), 1/5 (1/5), 1/3 (1/3), 1/2 (1/2), 1(1), 2(2), 3(3.13), 5(5), 10 (8.33), 15(12.5), 30(25), 60(50), 120(100).	Time-Lapse record speed setup.
>RECORD MODE	ALWAYS	-Always: 24 hours recording. Manual record or stop.
	SCHEDULE	-Schedule: Date and time schedule recording mode.
	EVENT	-Event: Alarm / Motion / V-Loss event mode recording.
	EVENT ON SCHEDULE	-Event on schedule: Event record only on schedule time.
	EVENT + SCHEDULE	-Event + Schedule: Except event on schedule recording, it would still do record if event happens not on schedule time.
>RECORD AUDIO	ON	One channel audio input and out, to record important events voice.
	OFF	
>QUALITY	SUPER	Image quality setup. Different quality setup, different playback quality.
	HIGH	
	FINE	
	NORMAL	
	LOW	
>SCHEDULE SETUP	Date and time Increase or reduce.	Date and time schedule setup.

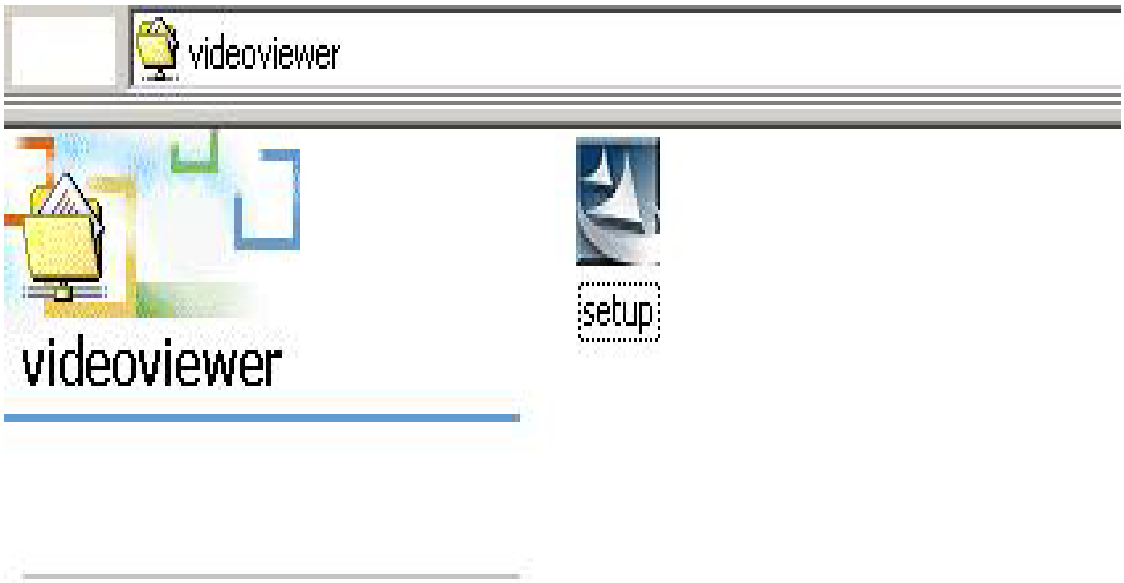
	Function	Client
>PASSWORD SETUP	NONE	DVR control protection.
	ADMIN 5 character	User authority ADMIN and USER setup.
	USER 5 character	
User log in cannot change values of advanced setup.		

	Function	Client
>HDD FORMAT	Hard disk data format	Clear and format hard disk data.

	Function	Client
>FACTORY DEFAULT	Default return	All values back to factory default.

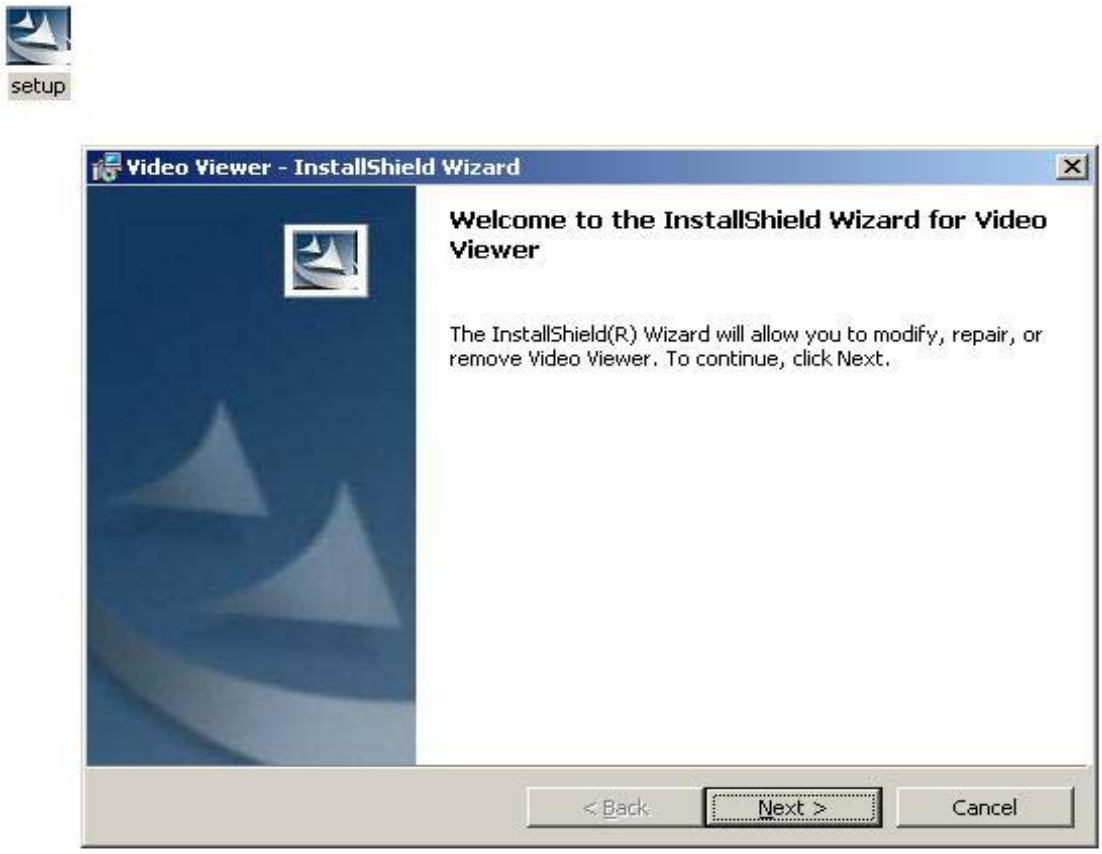
CF card data read on PC

1. CD folder, save setup.exe to PC hard disk or double click it or install with Auto Run program.
2. Acrobat Adobe PDF installed in PC is necessary.

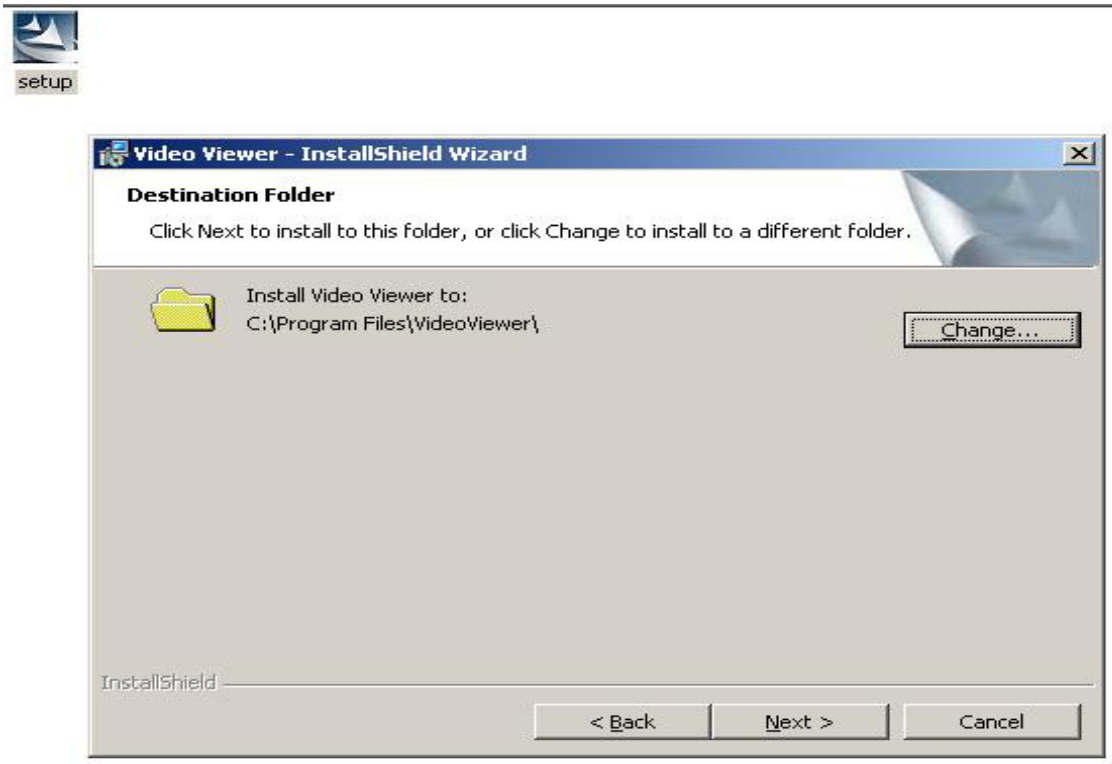


2. Install Shield Wizard processing.

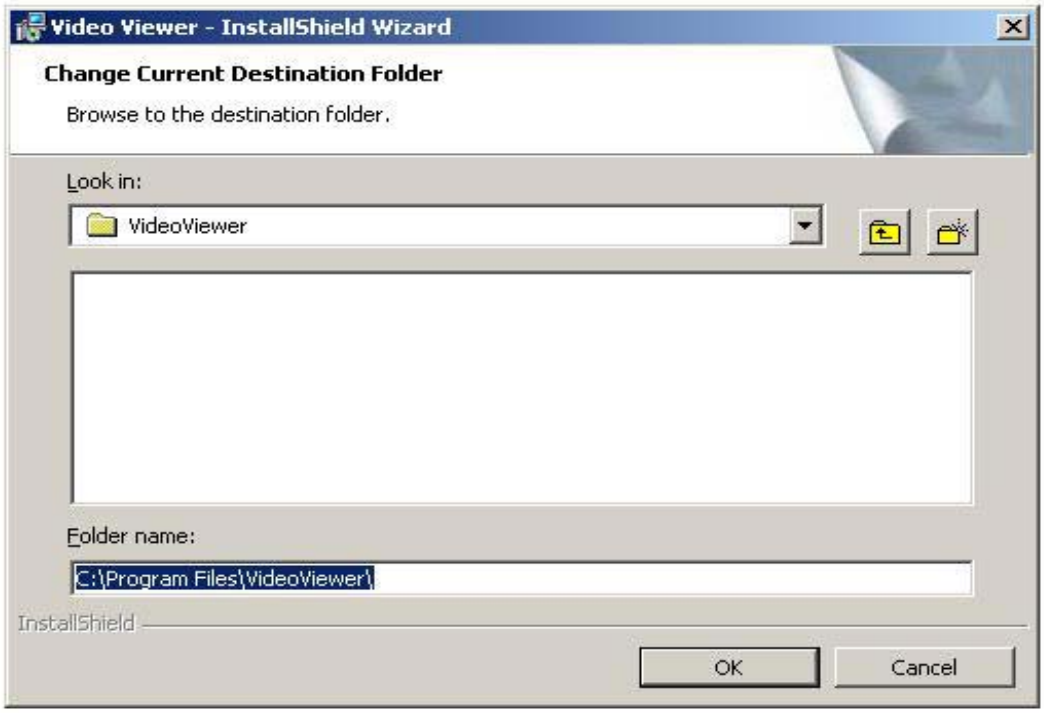
3. Click Next.


setup
Video Viewer - InstallShield Wizard
Welcome to the InstallShield Wizard for Video Viewer
The InstallShield(R) Wizard will allow you to modify, repair, or remove Video Viewer. To continue, click Next.
< Back
Next >
Cancel

4. Choose folder.

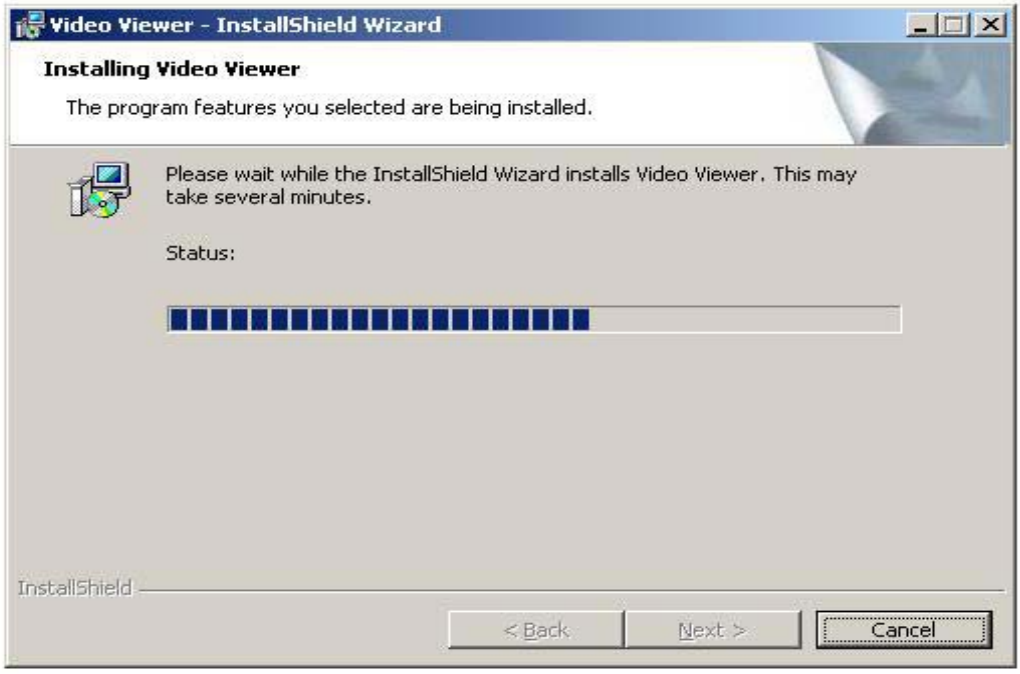


5. After choose folder, click OK.

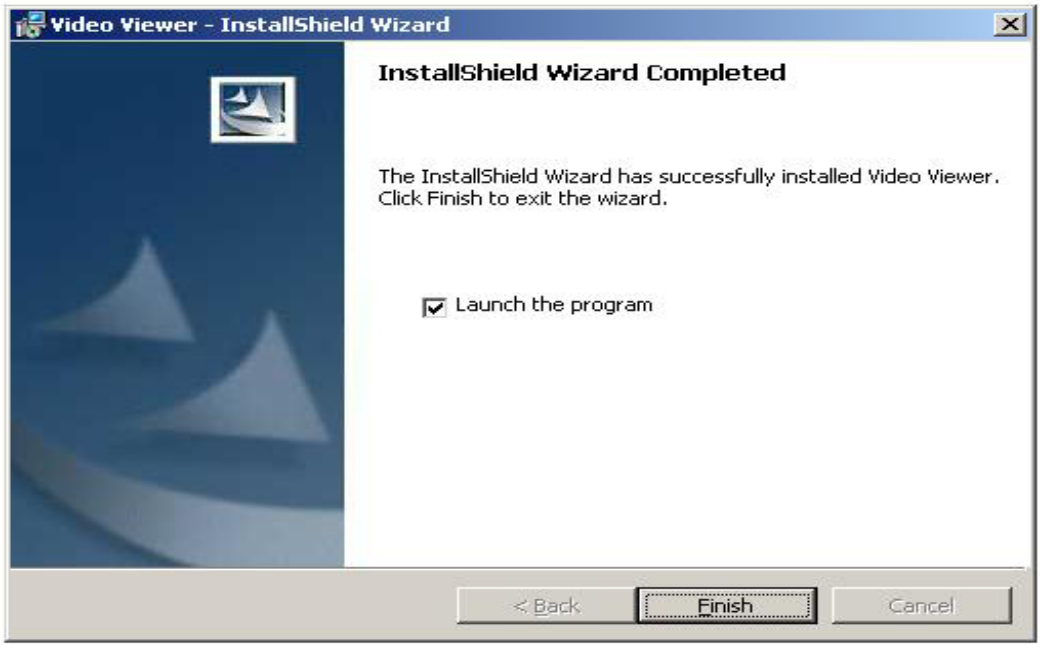


6. Click install to start.

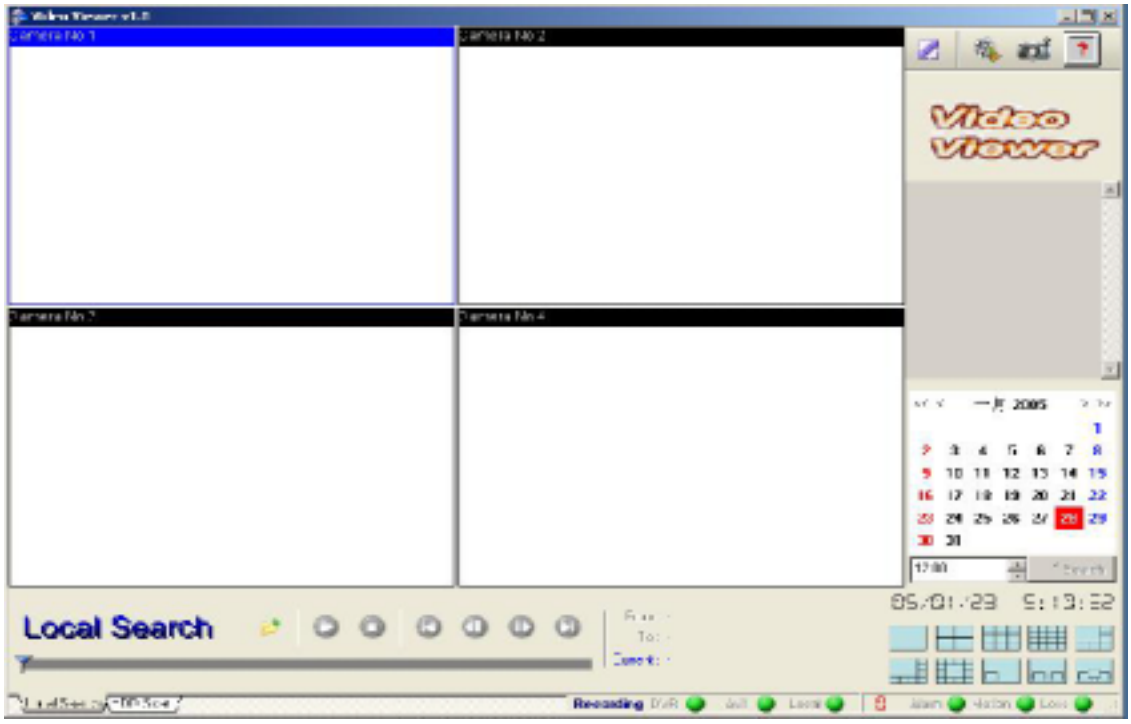
7. Installing


Video Viewer - InstallShield Wizard
Installing Video Viewer
The program features you selected are being installed.
Please wait while the InstallShield Wizard installs Video Viewer. This may take several minutes.
Status:
InstallShield
< Back
Next >
Cancel

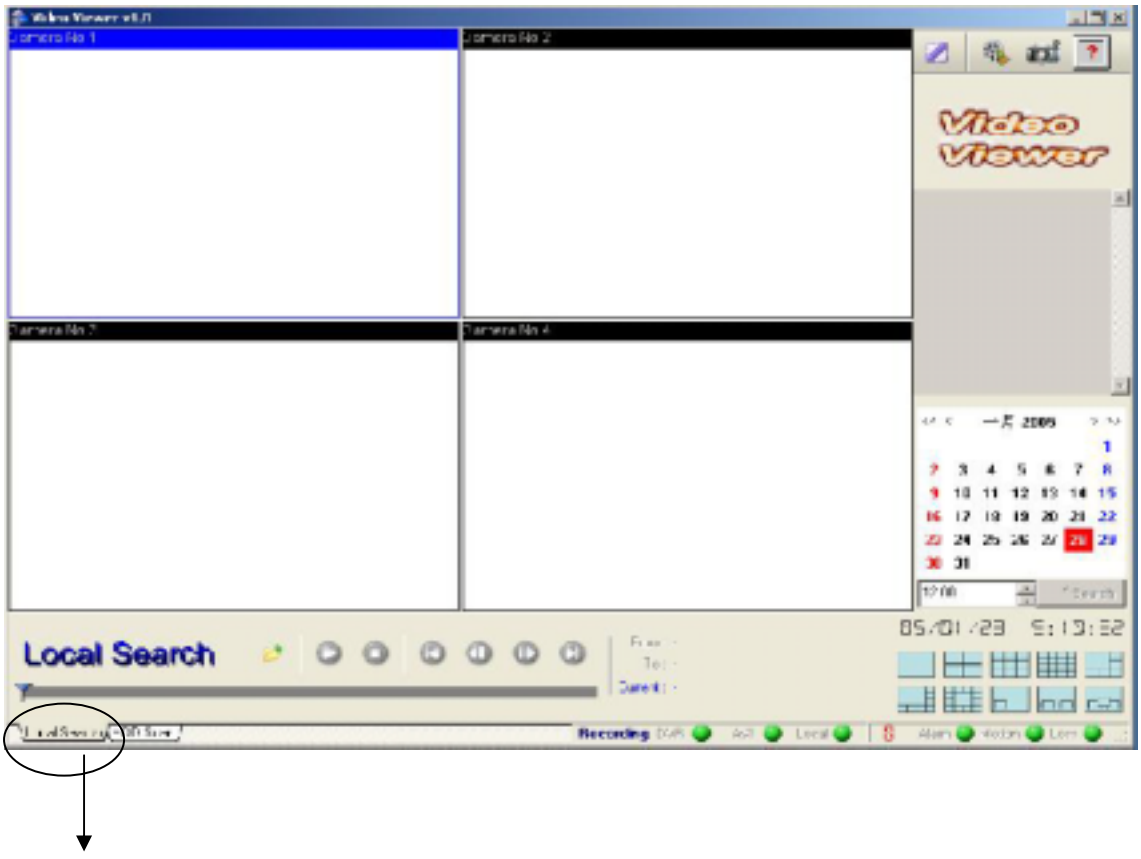
8. Click Finish


Video Viewer - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed Video Viewer. Click Finish to exit the wizard.
Launch the program
< Back
Finish
Cancel

Start→Program→ Video Viewer→Video Viewer

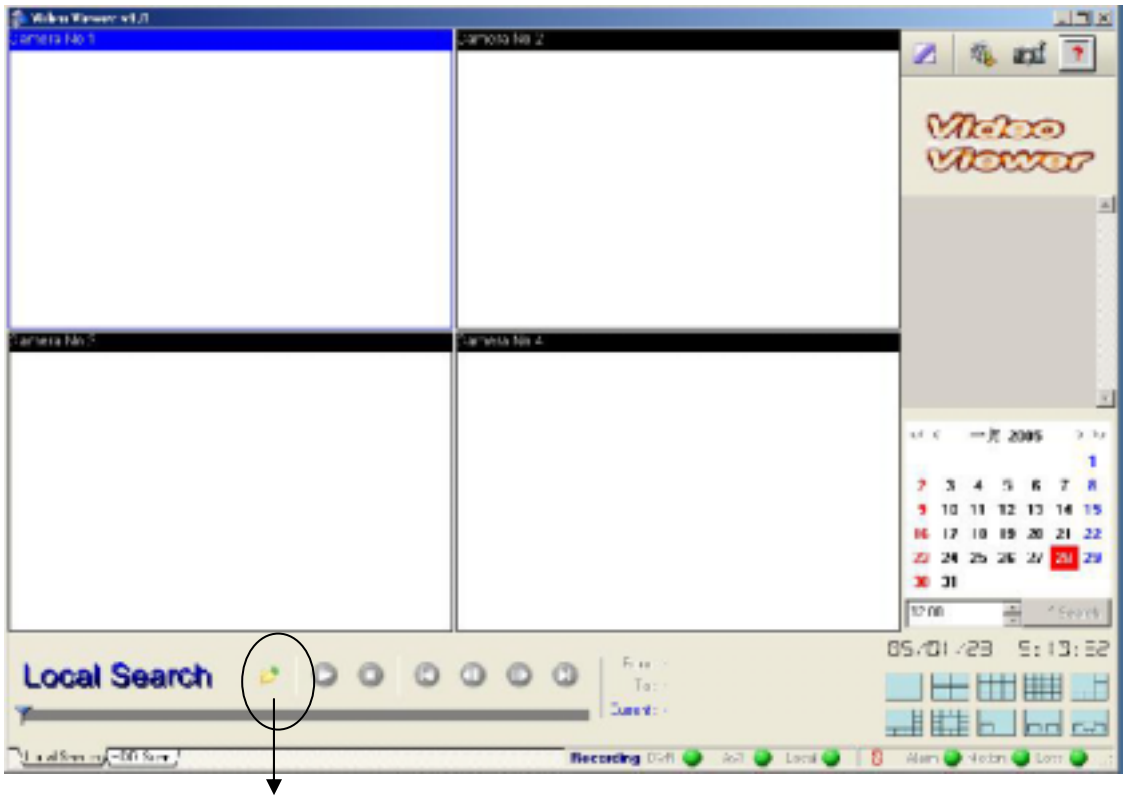


Click Local Search.



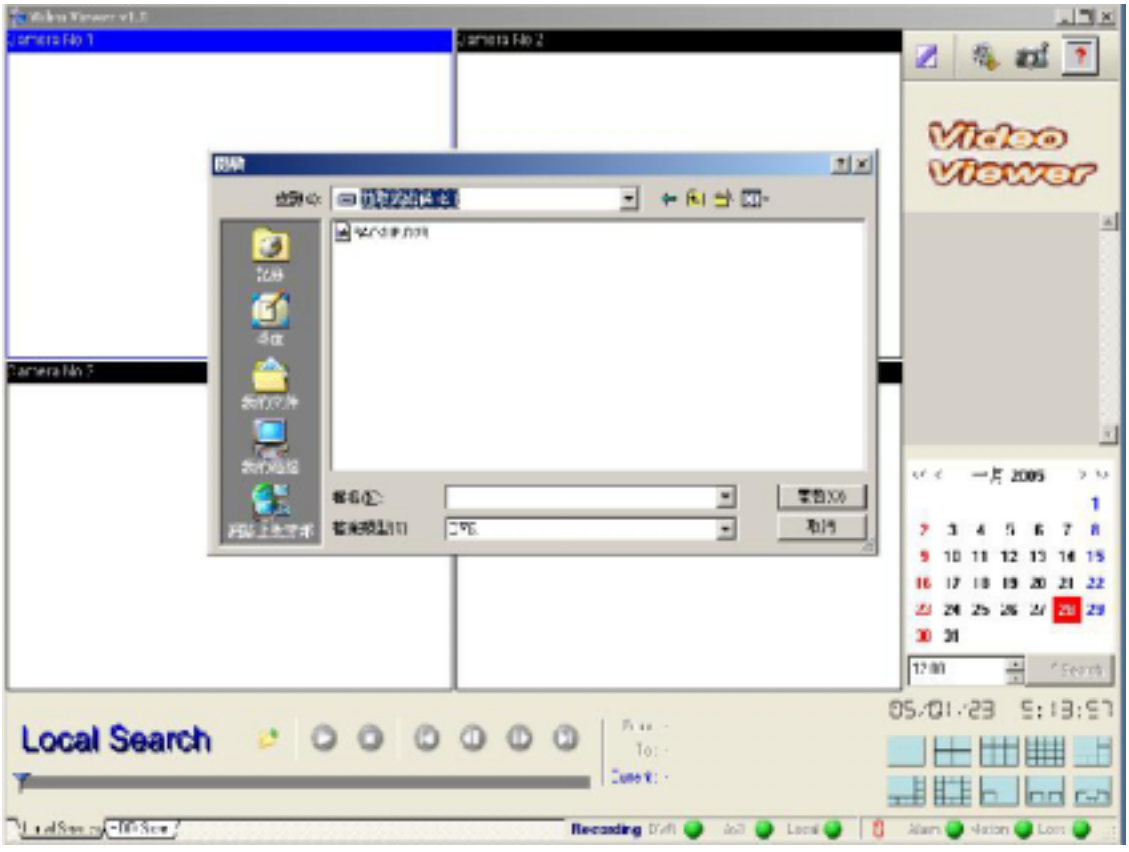
Left key of mouse click Local Search.

Choose folder

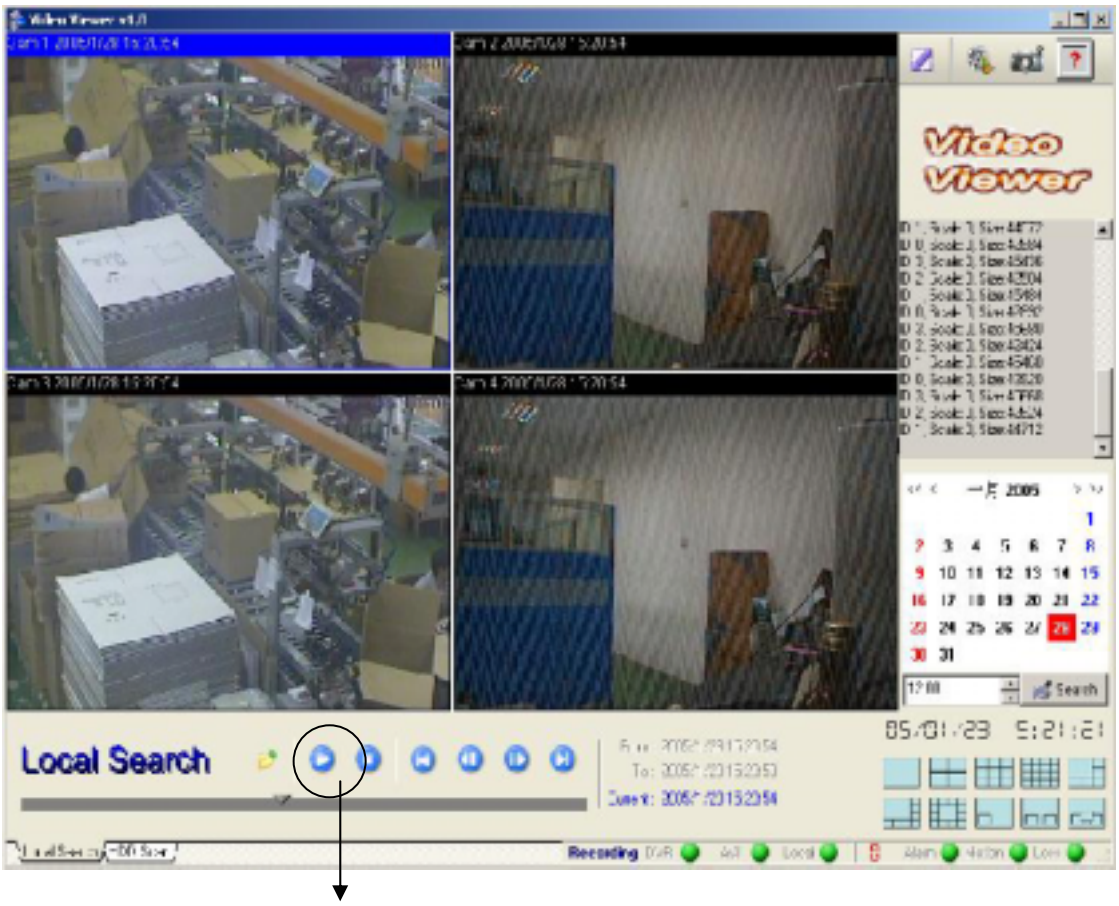


Click folder.

Choose new removable hard disk→ BACKUP.DVR file. →OPEN.

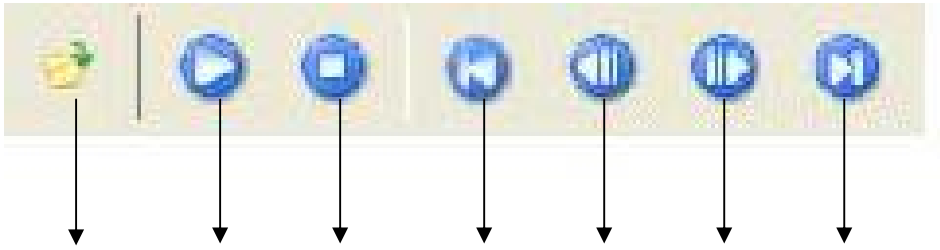


Start to playback



Left key of mouse click play

Icon:

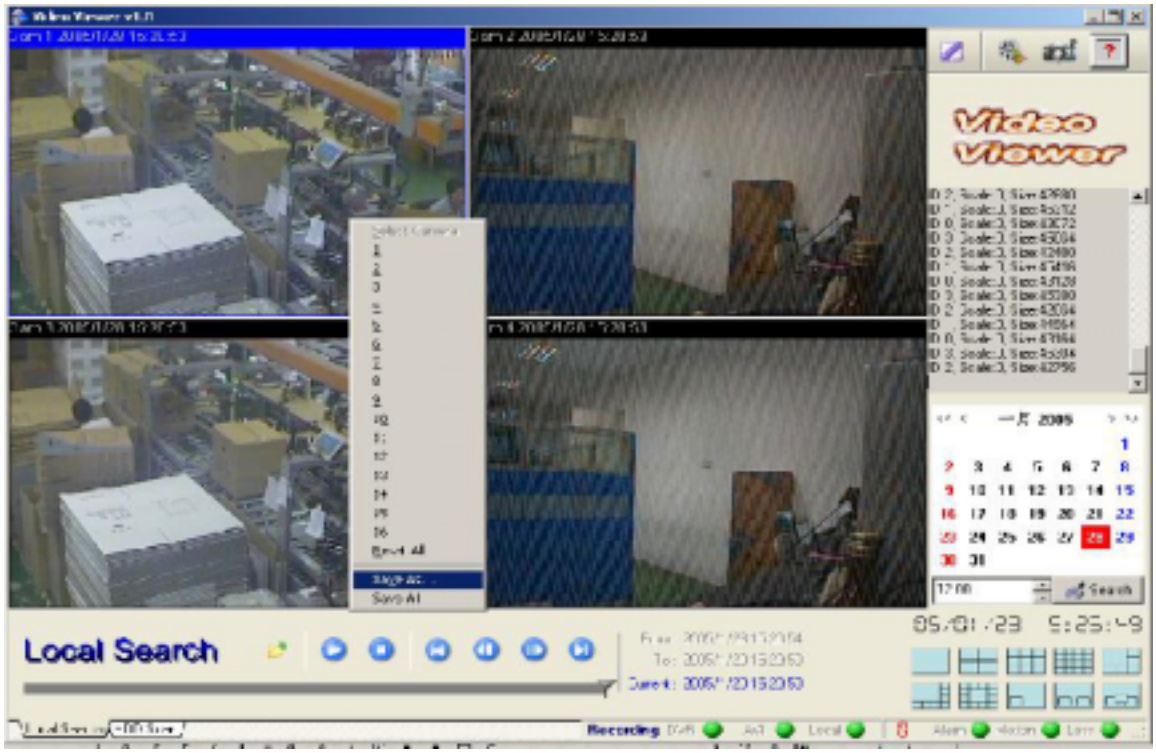


Folder Play Stop First Forward / Reverse End

Still playback

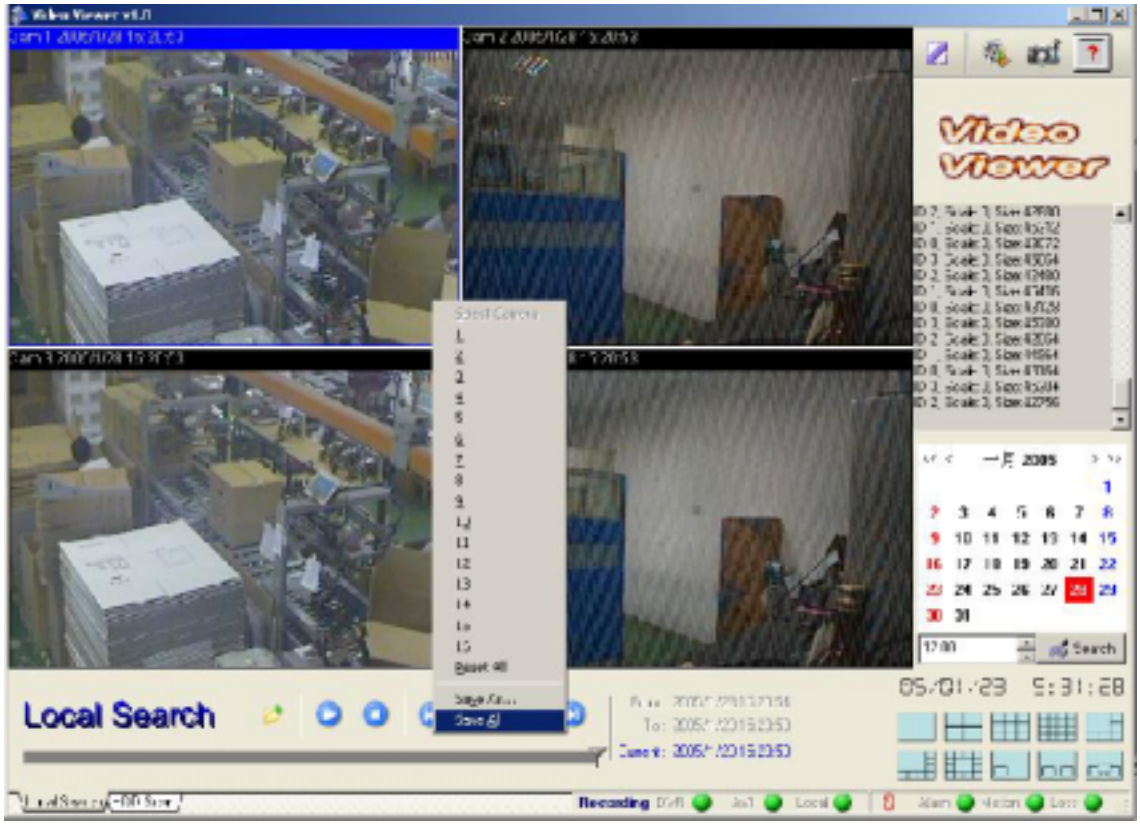
Picture capture save. (.JPG file saves.) Only camera full channel save, no quad pictures save.

For example: Channel 1 .jpg save. Mouse click 1 channel once, then click mouse right button. Choose save as→choose the folder you want to save.

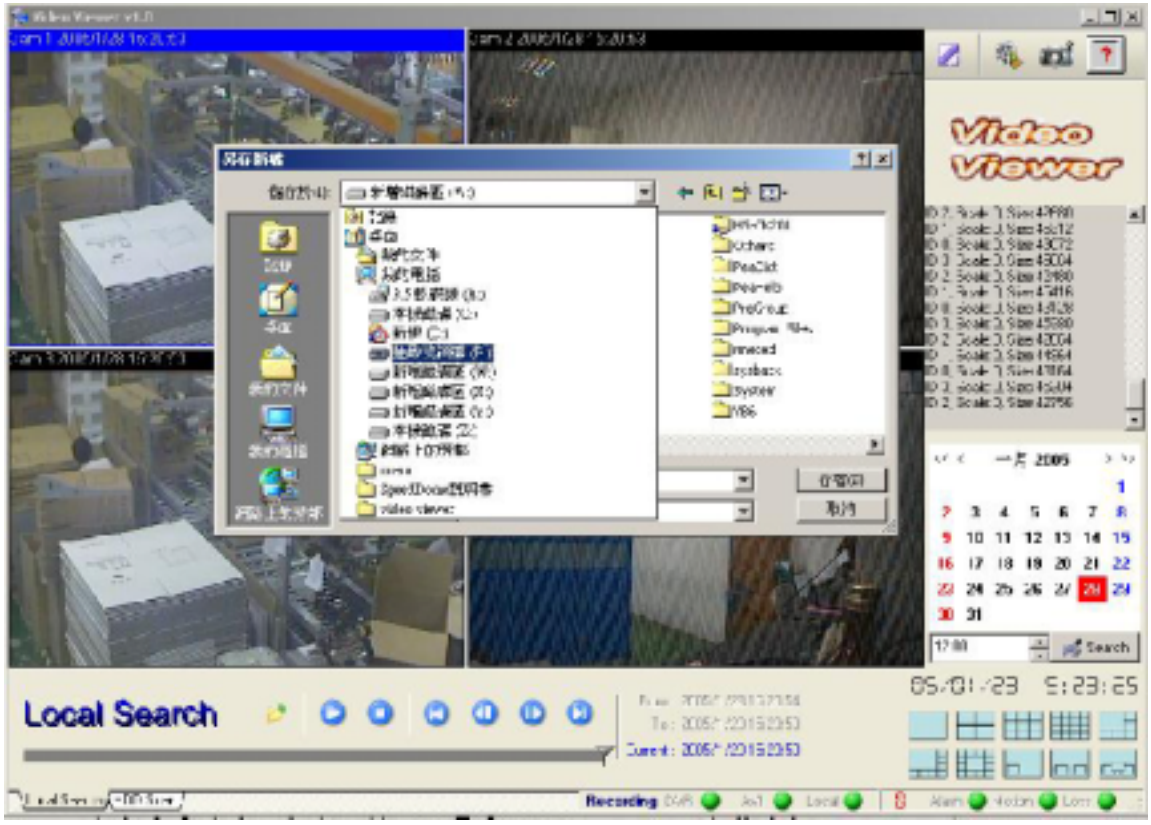


Type any file name you want, and then click save.

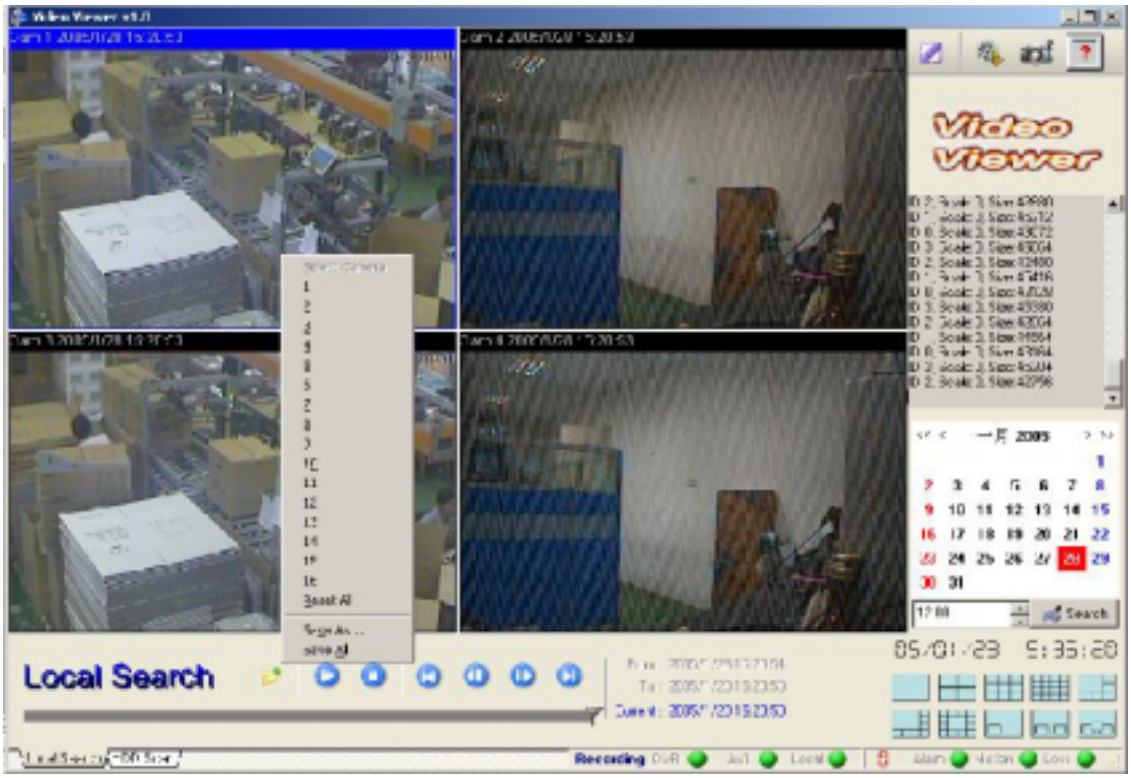
Or choose save all. Save all cameras full channel picture.



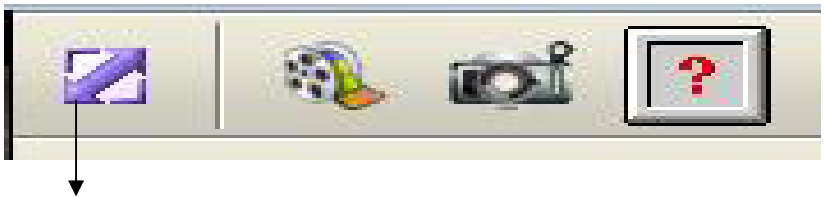
Choose folder and type file name.

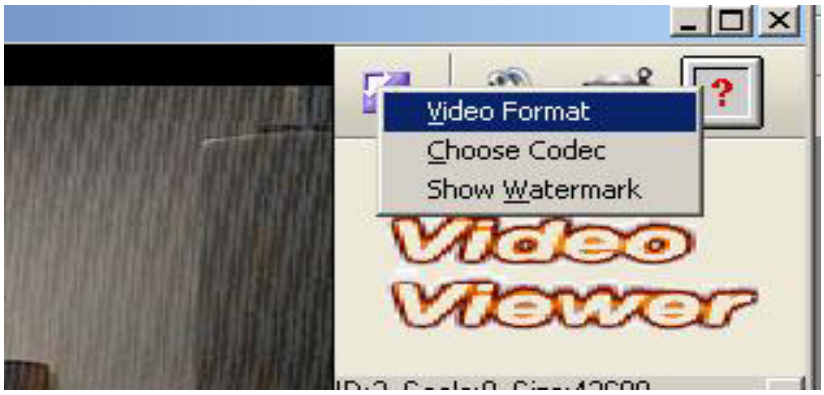


Click mouse left button, blue bar display. Click mouse right button to choose 1 ~ 4 cameras to change position.



Icon function:





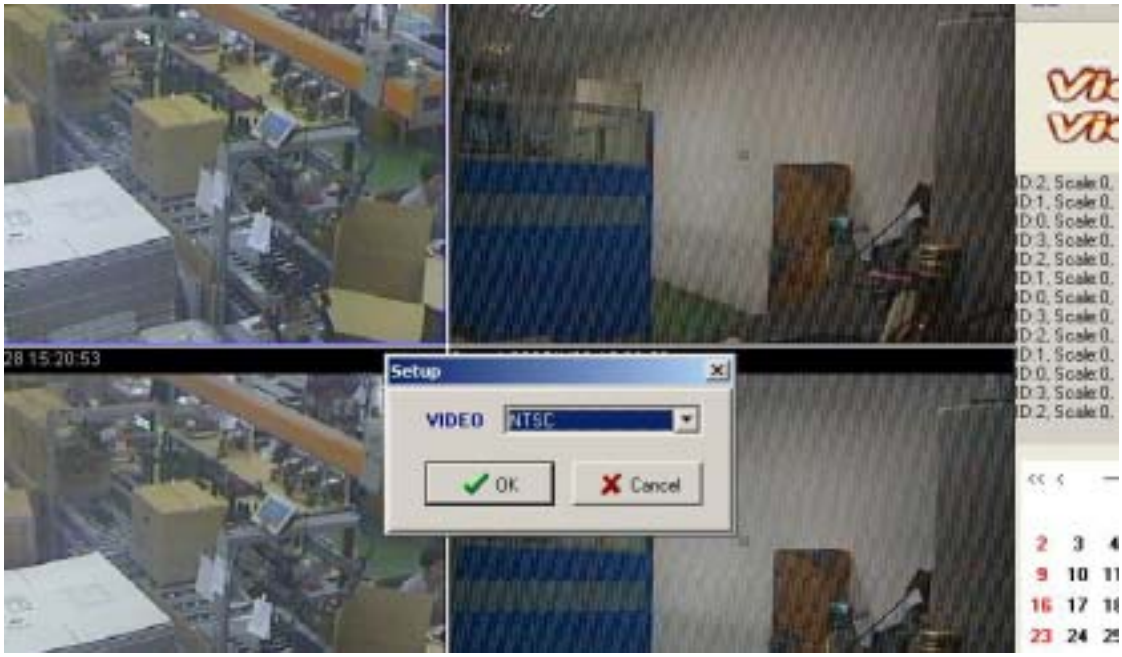
Setting:

Video Format: NTSC or PAL.

Choose Codec: AVI encode format.

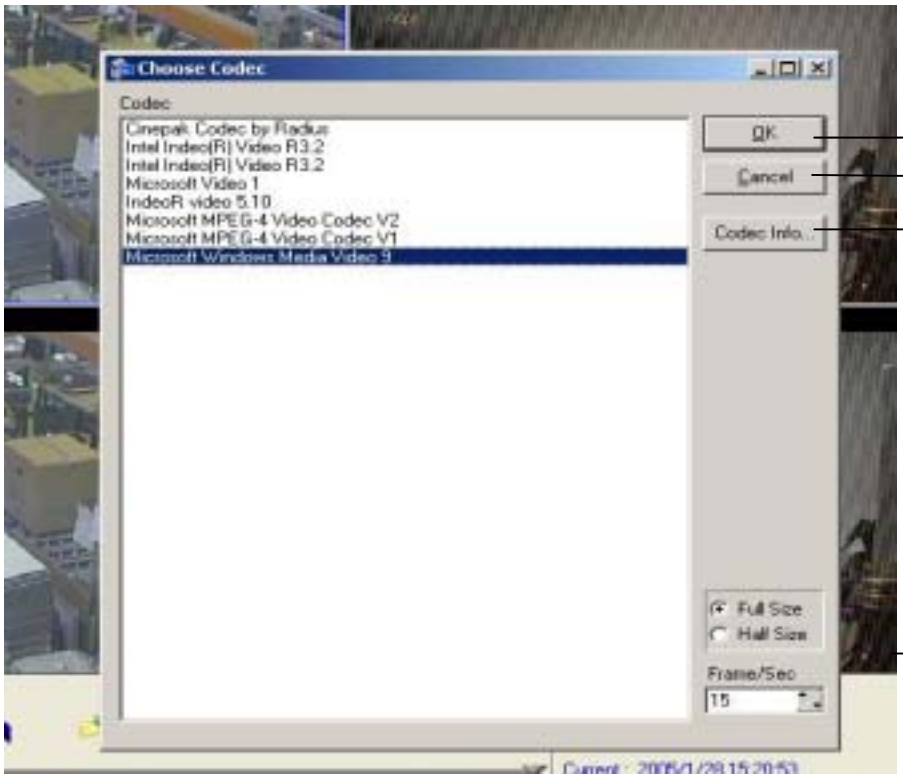
Show Watermark: Water mark function on or off.

Video Format: Chose NTSC or PAL.



Choose Codec: File format.

We strongly recommend user to choose Microsoft Windows Media Video 9.



Confirm

Cancel

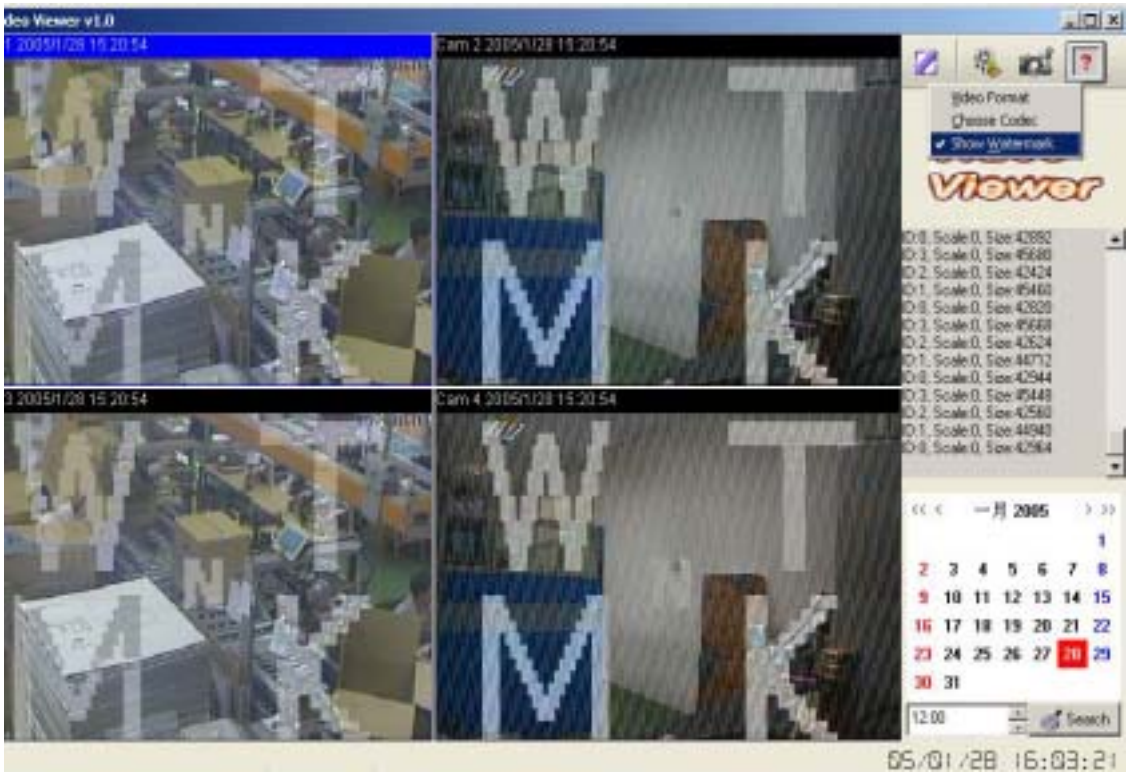
Information

Half and Full screen choose

and Record frame rate 1 ~ 30

Show Watermark: Water mark function or off.

To check file has been modify or not.



AVI file save:

AVI button: AVI file save.

Choose folder and type file name.

Click save:

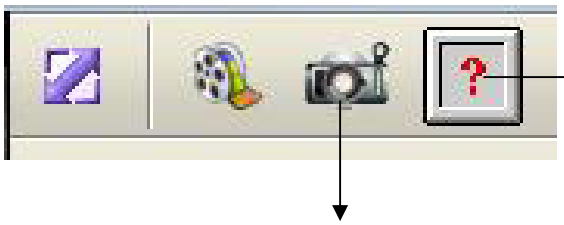
Choose 1 ~ 4,
and then click OK.

Click OK, and then AVI red light on:

Click play button to start
record, Click AVI button to stop.

AVI red light on, start to record.

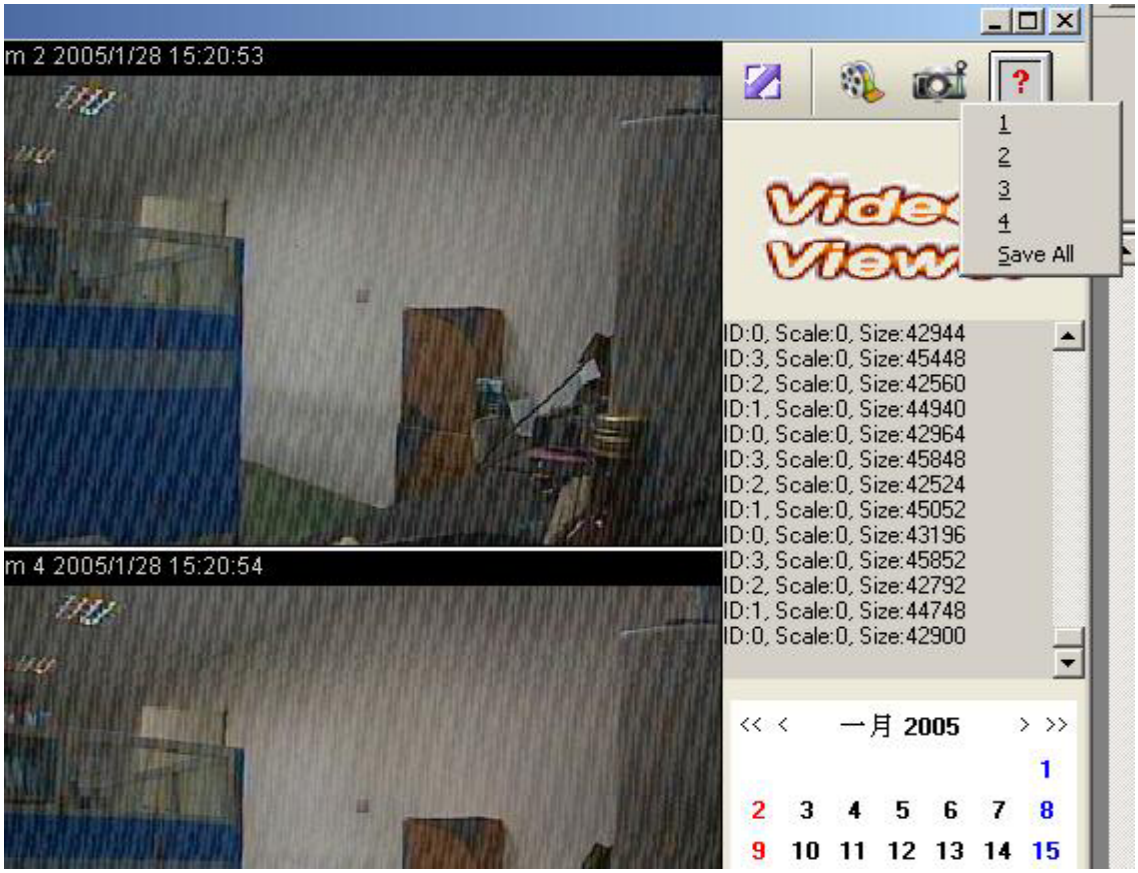
JPG file save:



Help

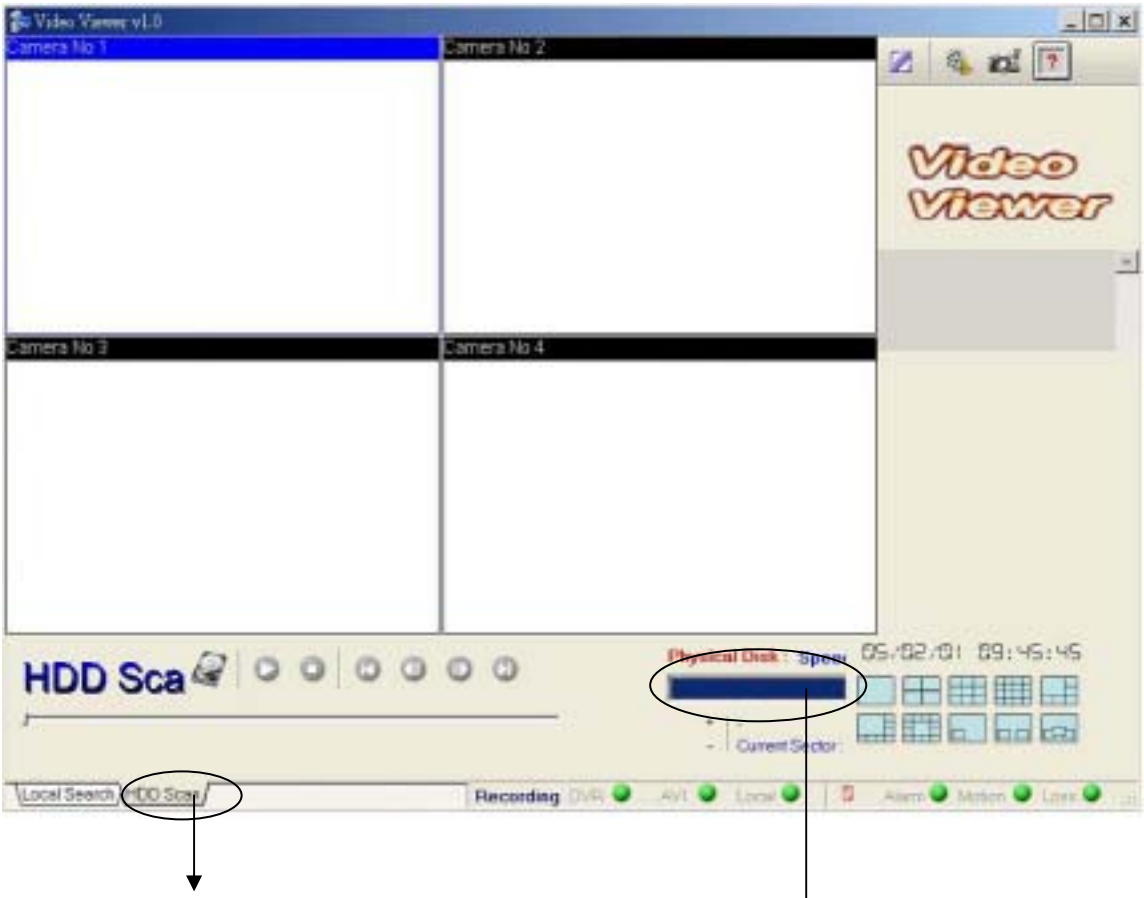
Choose folder and type file name

Choose camera 1 ~ 4 or save all.



Hard Disk Data Read

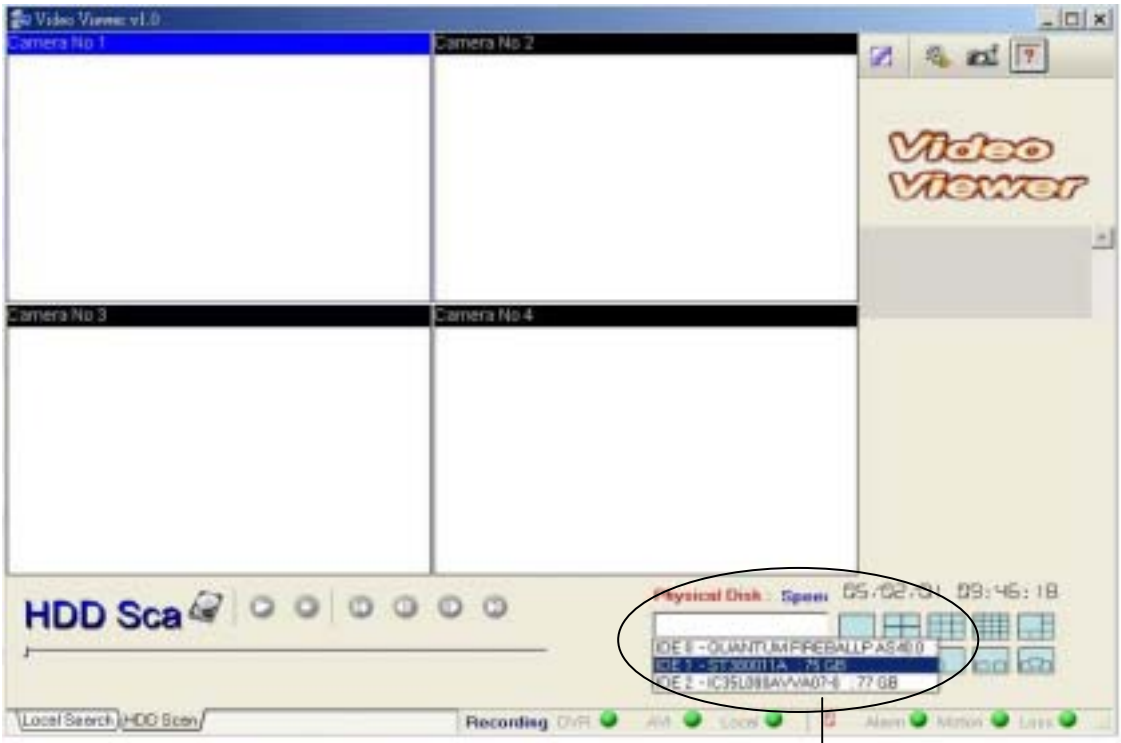
1. Take HDD out from DVR to personal computer. Make sure hard disk in PC is Master or Slave, switch hard disk jumper to Master or Slave.
2. Computer power on, do not need to BIOS setup, just login Windows system.
3. Start→Program→ Video Viewer→ Video Viewer
4. Click HDD Scan.



Left key of mouse click HDD Scan.

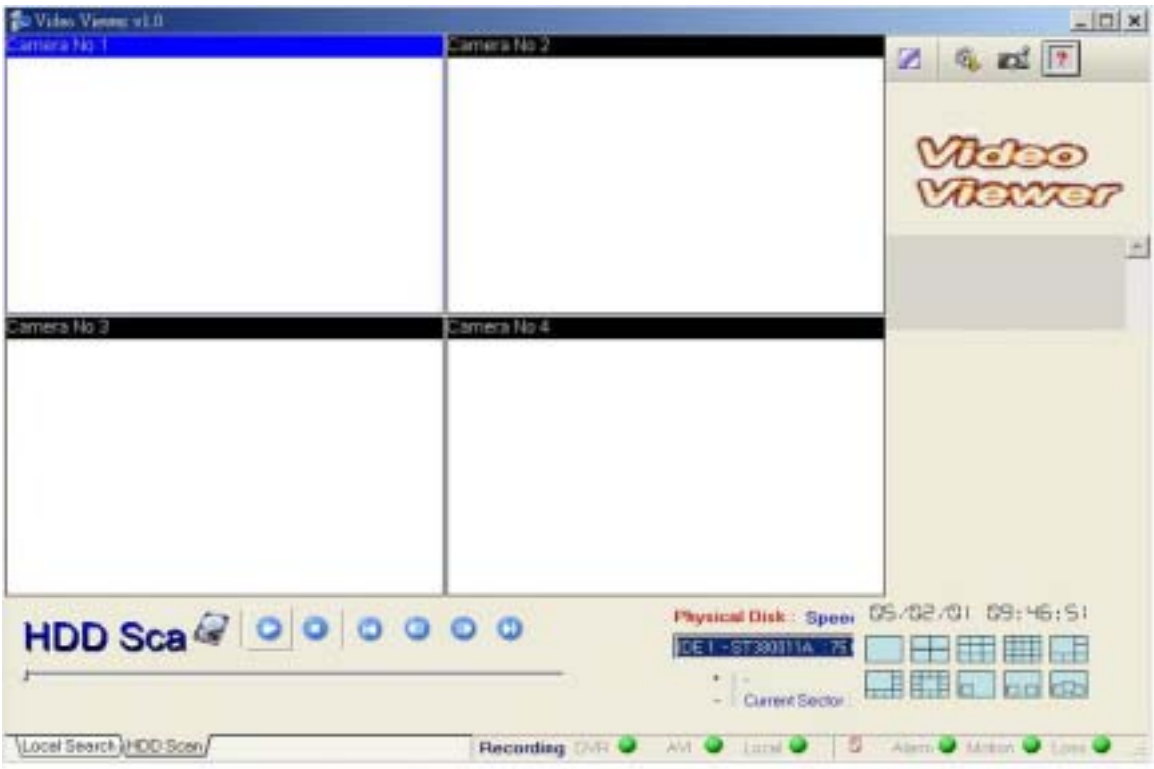
Click here, hard disk list on. Click the correct DVR hard disk, data will not loose if choose wrong HDD.

Hard Disk list on:



Click here, hard disk list on. Click the correct DVR hard disk, data will not loose if choose wrong HDD.

Click correct hard disk model, after function on, user can start to data read. Function access is same as prior pages.



Record Time Table: 80GB HD

Record Quality: Low. KB Range: Lowest: 13, Highest: 20. Average: 17.

REC FPS	120	60	30	15	10
REC Hour	21.7	21.7	43.5	87.1	130.7
REC FPS	5	3	2	1	1/2
REC Hour	261.4	435.7	653.5	1307.1	2614.3
REC FPS	1/3	1/5	1/10	1/15	1/30
REC Hour	4357.2	6535.9	13071.8	21786.4	43572.8

Record Quality: Normal. KB Range: Lowest: 14, Highest: 25. Average: 20.

REC FPS	120	60	30	15	10
REC Hour	18.5	18.5	37	74	111.1
REC FPS	5	3	2	1	1/2
REC Hour	222.2	370.3	555.5	1111.1	2222.2
REC FPS	1/3	1/5	1/10	1/15	1/30
REC Hour	3703.7	5555.5	11111.1	18518.5	37037

Record Quality: Fine. KB Range: Lowest: 15, Highest: 28. Average: 22.

REC FPS	120	60	30	15	10
REC Hour	16.8	16.8	33.6	67.3	101
REC FPS	5	3	2	1	1/2
REC Hour	202	336.7	505	1010.1	2020.2
REC FPS	1/3	1/5	1/10	1/15	1/30
REC Hour	3367	5050.5	10101	16835	33670

Record Quality: High. KB Range: Lowest: 17, Highest: 30. Average: 24.

REC FPS	120	60	30	15	10
REC Hour	15.4	15.4	30.8	61.7	92.5
REC FPS	5	3	2	1	1/2
REC Hour	185.1	308.6	462.9	925.9	1851.8
REC FPS	1/3	1/5	1/10	1/15	1/30
REC Hour	3086.4	4629.6	9259.2	15432	30864.1

Record Quality: Super. KB Range: Lowest: 19, Highest: 45. Average: 32.

REC FPS	120	60	30	15	10
REC Hour	11.5	11.5	23.1	46.2	69.4
REC FPS	5	3	2	1	1/2
REC Hour	138.8	231.4	347.2	694.4	1388.8
REC FPS	1/3	1/5	1/10	1/15	1/30
REC Hour	2314.8	3472.2	6944.4	11574	23148.1